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EXAMINER

STORK, KYLE R

ART UNIT PAPER NUMBER

2178

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,830

Applicant(s)

TEWARI, SOURABH

Examiner

Kyle R Stork

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/20/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This is in response to application filed on December 20, 2000.

Claims 1-18 are rejected where claims 1 and 16-18 are independent claims.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The examiner suggests "Method and Apparatus for Generating a Formatted Document with Logical Elements"
2. The disclosure is objected to because of the following informalities: On page 3, line 17 "a third" is repeated.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6-7, 9-10, 15-16, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Alam et al. (U.S. 6,336,124).

As per independent claim 1 Alam discloses a computer-implemented method for processing an electronic document comprising:

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- Obtaining a first electronic document containing logical elements having logical types and associated content with a visual appearance (Figure 3, step 302; column 5, lines 10-15; claim 1)
- Generating a second electronic document by associating marker attribute values with logical elements in the first document and converting the first document with a document conversion process that preserves the marker attribute values and the logical elements (column 6, lines 54-61 and claim 1)
- Using the marker attribute values to identify logical elements in the second electronic document (column 6, lines 54-61 and claim 1)

As per dependent claim 2 Alam discloses the elements of claim 1:

- Generation of a third electronic document before associating marker attributes with the plurality of logical elements (Figure 6, item 626)
- Marker attribute values in the second electronic document identifying elements in the third electronic document (Figure 6, item 530)

As per dependent claim 3 Alam discloses the elements of claim 2 and a second and third documents that have logical elements that correspond to those in the first document (Figure 7 and Figure 3).

As per dependent claim 4 Alam discloses that the elements in the second document have corresponding elements in the first document (Figures 3, 4, 11, and 12; column 13, lines 15-19).

As per dependent claim 6 Alam discloses associating marker attribute values with each of the plurality of logical elements in the first electronic document (column 7, lines 5-9).

As per dependent claim 7 Alam discloses associating a different marker attribute value with each logical element located within one same page of the first electronic document (Figures 20 and 21 A-F; column 19, lines 37-44).

As per dependent claim 9 Alam discloses the method above where the first electronic document is generated in a word processing application (column 2, lines 28-36 and claim 4).

As per dependent claim 10 Alam discloses the method above where the second document is a PDF document (column 5, lines 28-34 and claim 4).

As per independent claim 15 Alam discloses a computer-implemented method for creating a final-format document having logical elements from a source document generated by a computer application, the method comprising:

- Obtaining an original final-format document from the computer application, the original final-final format document being generated from the source document (Figure 6, item 626)
- Marking logical elements of the source document (column 6, lines 54-61 and claim 1)
- Obtaining logical structure information from the source application (Figure 6, item 534; column 5, lines 28-34; claim 1)

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- Creating logical elements in the original final-formatted document using the obtained logical structure information and the marked final-format document (Figure 6, item 530; Figure 7; Figure 3)

As per independent claim 16 Alam discloses a computer program product able to:

- Obtain a first electronic document containing logical elements having logical types and associated content with a visual appearance (Figure 3, step 302; column 5, lines 10-15; claim 16)
- Generating a second electronic document by associating marker attribute values with logical elements in the first document and converting the first document with a document conversion process that preserves the marker attribute values and the logical elements (column 6, lines 54-61 and claim 16)
- Using the marker attribute values to identify logical elements in the second electronic document (column 6, 54-61 and claim 16)

As per claim 18 Alam discloses a computer program product stored on a machine-readable medium comprising instructions operable to cause a programmable processor to:

- Obtaining an original final-format document from the computer application, the original final-final format document being generated from the source document (Figure 6, item 626)
- Marking logical elements of the source document (column 6, lines 54-61 and claim 1)

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- Obtaining logical structure information from the source application (Figure 6, item 534; column 5, lines 28-34; claim 1)
- Creating logical elements in the original final-formatted document using the obtained logical structure information and the marked final-format document (Figure 6, item 530; Figure 7; Figure 3)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alam.

As per dependent claim 5 Alam discloses a computer-implemented method for processing an electronic document comprising:

- Obtaining a first electronic document containing logical elements having logical types and associated content with a visual appearance (Figure 3, step 302; column 5, lines 10-15; claim 1)
- Generating a second electronic document by associating marker attribute values with logical elements in the first document and converting the first document with a document conversion process that preserves the marker

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attribute values and the logical elements (column 6, lines 54-61 and claim 1)

- Using the marker attribute values to identify logical elements in the second electronic document (column 6, lines 54-61 and claim 1)
- The format of a converted document being one of a plurality, one of the plurality being a PDF document (column 5, lines 28-34 and claim 4)

Alam fails to explicitly teach a "print" process as the conversion method from a source document into a converted PDF document.

However, the conversion method from a source document to a PDF document was well known as a type of "print" process. It would have been obvious to a person of ordinary skill in the art at the time of the invention to have Alam incorporate the well known "print" process to convert Alam's source document to converted PDF document since a person of ordinary skill in the art could have appreciated that a PDF represents a document that simulates a printed document.

As per dependent claim 11 Alam discloses a computer-implemented method for processing an electronic document comprising:

- Obtaining a first electronic document containing logical elements having logical types and associated content with a visual appearance (Figure 3, step 302; column 5, lines 10-15; claim 1)
- Generating a second electronic document by associating marker attribute values with logical elements in the first document and converting the first document with a document conversion process that preserves the marker

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attribute values and the logical elements (column 6, lines 54-61 and claim 1)

- Using the marker attribute values to identify logical elements in the second electronic document (column 6, lines 54-61 and claim 1)
- The format of a converted document being one of a plurality, one of the plurality being a PDF document (column 5, lines 28-34 and claim 4)

Alam does not specifically teach identifying logical elements in the second electronic document by converting the marker attribute values to logical types.

However, the conversion process disclosed by Alam used marker attribute values to maintain logical types between documents. It would have been obvious to a person of ordinary skill in the art at the time of the invention to have recognized that Alam inherently converts the marker attribute values to logical types to maintain the logical elements of the source document.

7. Claims 8, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alam as applied to claim 1 above and in further view of Adobe Creative Team.

As per dependent claim 8 Alam discloses a computer-implemented method for processing an electronic document comprising:

- Obtaining a first electronic document containing logical elements having logical types and associated content with a visual appearance (Figure 3, step 302; column 5, lines 10-15; claim 1)
- Generating a second electronic document by associating marker attribute values with logical elements in the first document and converting the first

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document with a document conversion process that preserves the marker attribute values and the logical elements (column 6, lines 54-61; claim 1)

- Using the marker attribute values to identify logical elements in the second
- electronic document (column 6, lines 54-61 and claim 1)

Alam fails to teach the marker attribute values as color values. However, the Adobe Creative Team teaches the ability to maintain color attributes from a source document to a converted document (Adobe Acrobat 4.0, Second Edition, Lesson 1, step 6 and Lesson 3, "Converting files to PDF from Microsoft applications (Windows)).

It would have been obvious to one skilled in the art at the time of applicant's invention to have combined Alam's marker attributes with the Adobe Creative Team's ability to have color from a source document correspond to color in a converted document. Motivation to do so would have been to use an attribute that remains consist from the source document to the converted document in order to identify corresponding elements.

As per independent claim 14 Alam discloses a computer-implemented method for converting a source document including a plurality of logical elements into a PDF document comprising:

- Producing a first PDF from a source document (Figure 6, item 626)
- Identifying logical elements of the source document (column 6, lines 54-61 and claim 1)

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- Producing a second PDF document containing identified logical elements from the source document (Figure 6, item 534; column 5, lines 28-34; claim 1)
- Creating logical elements in the first PDF document based on the color-coded PDF document with logical elements corresponding to the source document (Figure 6, item 530; Figure 7; Figure 3)

Alam fails to teach the use of color as a marker attribute value. However, the Adobe Creative Team teaches that ability to maintain color PDF document (Adobe Acrobat 4.0, Second Edition, Lesson 1, step 6 and Lesson 3, "Converting files to PDF from Microsoft applications (Windows)). It would have been obvious to one of ordinary skill in the art at the time of the invention to use color as a means for marking logical elements. Motivation to do so would have been to preserve the separation of different logical elements by applying different colors to each.

As per independent claim 17 Alam discloses a computer program product stored on a computer readable medium comprising instruction operable to cause a program processor to:

- Producing a first PDF from a source document (Figure 6, item 626)
- Identifying logical elements of the source document (column 6, lines 54-61 and claim 1)
- Producing a second PDF document containing identified logical elements from the source document (Figure 6, item 534; column 5, lines 28-34; claim 1)

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- Creating logical elements in the first PDF document based on the color-coded PDF document with logical elements corresponding to the source document (Figure 6, item 530; Figure 7; Figure 3)

Alam fails to teach the use of color as a marker attribute value. However, the Adobe Creative Team teaches that ability to maintain color PDF document (Adobe Acrobat 4.0, Second Edition, Lesson 1, step 6 and Lesson 3, "Converting files to PDF from Microsoft applications (Windows)). It would have been obvious to one of ordinary skill in the art at the time of the invention to use color as a means for marking logical elements. Motivation to do so would have been to preserve the separation of different logical elements by applying different colors to each.

8. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alam as applied to claim 1 above and in further view of Wexler et al.

As per dependent claim 12 Alam discloses a computer program product able to:

- Obtain a first electronic document containing logical elements having logical types and associated content with a visual appearance (Figure 3, step 302; column 5, lines 10-15; claim 16)
- Generating a second electronic document by associating marker attribute values with logical elements in the first document and converting the first document with a document conversion process that preserves the marker

attribute values and the logical elements (column 6, lines 54-61 and claim 16)

- Using the marker attribute values to identify logical elements in the second electronic document (column 6, 54-61 and claim 16)

Alam fails to teach using the marker attribute values in the second electronic document to create a hierarchical structure for the plurality of logical elements in the structure. However, Wexler teaches using structural groups of a document to create a hierarchy (Figure 8; column 5, line 66- column 6, line 3). It would have been obvious to one skilled in the art at the time of applicant's invention to have combined Alam's documents with logical elements with Wexler's hierarchical structure. Motivation to do so would have been to allow for the document to be rearranged or grouped based upon similar logical elements (Wexler: column 2, lines 23-25).

As per dependent claim 13 Alam and Wexler teach claim 12 above and the method of obtaining structural information from the first electronic document to create a hierarchal structure for the plurality of logical elements in the second structure (Wexler: Figure 2; column 3, lines 39-46).). It would have been obvious to one skilled in the art at the time of applicant's invention to have combined Alam and Wexler's use of a document with hierarchical structure with Wexler's further use of a source document to create a hierarchical structure. Motivation to do so would have been to allow for the document to be rearranged or grouped based upon similar logical elements in both documents (Wexler: column 2, lines 23-25).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lavery et al. US 6381032 : A print system with PDF conversion and image logic information.
- Motoyama et al. US 5506985 : Document conversion with a hierarchical structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R Stork whose telephone number is (703) 605-1203. The examiner can normally be reached on Monday-Friday (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (703) 308-5465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kyle Stork
Examiner
Art Unit 2178



STEPHEN S. HONG
PRIMARY EXAMINER